

Tsuneo MAKI, S.N. 10/538,285
Page 2

RECEIVED
CENTRAL FAX CENTER
JAN 03 2008

Dkt. 2271/74557

Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1. (currently amended) A sheet conveyance apparatus for conveying a sheet ~~by attaching the sheet onto an endless conveyance belt by applying electric charges onto a surface of the conveyance belt~~, the sheet conveyance apparatus comprising:

an endless conveyance belt;

a charger that charges ~~[[the]]~~ a surface of said endless conveyance belt in a belt-like alternate voltage pattern; and

a control part that controls a charge width of the alternate voltage pattern in a direction of conveyance of the sheet.

2. (original) The sheet conveyance apparatus as claimed in claim 1, wherein said control part controls the charge width in accordance with a type of said sheet.

3. (original) The sheet conveyance apparatus as claimed in claim 2, further comprising a sheet-type input part that inputs information regarding the type of said sheet to said control part.

4. (original) The sheet conveyance apparatus as claimed in claim 2, wherein information regarding the type of said sheet is given externally.

5. (original) The sheet conveyance apparatus as claimed in claim 2, wherein said control

Tsuneo MAKI, S.N. 10/538,285

Dkt. 2271/74557

Page 3

part controls the charge width so that the charge width when the sheet contains a resin is smaller than the charge width when the sheet contains no resin.

6. (original) The sheet conveyance apparatus as claimed in claim 2, wherein said control part controls the charge width so that the charge width when a surface resistivity of the sheet is equal to or smaller than $1 \times 10^{10} \Omega/\square$ is set to be substantially equal to or greater than 4 mm and equal to or smaller than 30 mm, and the charge width when a surface resistivity of the sheet is great than $1 \times 10^{10} \Omega/\square$ is set to be substantially equal to or greater than 2 mm and substantially equal to or smaller than 8 mm.

7. (original) The sheet conveyance apparatus as claimed in claim 1, wherein said conveyance belt has a two-layer structure comprising an insulating layer as an obverse layer and a medium resistance layer as a backside layer.

8. (original) The sheet conveyance apparatus as claimed in claim 7, wherein a surface resistivity of said insulating layer is substantially equal to or greater than $1 \times 10^{10} \Omega/\square$, and a surface resistivity of said medium resistance layer is substantially equal to or smaller than $1 \times 10^{10} \Omega/\square$.

9. (original) The sheet conveyance apparatus as claimed in claim 7, wherein a thickness of said insulating layer is substantially equal to or smaller than 60 μm , and a thickness of said backside layer is substantially equal to or greater than 40 μm .

Tsuneo MAKI, S.N. 10/538,285
Page 4

Dkt. 2271/74557

10. (original) The sheet conveyance apparatus as claimed in claim 7, wherein a volume resistivity of a roller with which said conveyance belt is engaged is substantially equal to or smaller than $1 \times 10^{10} \Omega \cdot \text{cm}$.

11. (original) The sheet conveyance apparatus as claimed in claim 1, further comprising a discharger that removes or attenuates the charges on the surface of said conveyance belt, wherein said discharger is located on an obverse side of said conveyance belt and a position out of an area where said sheet is brought into contact with said conveyance belt.

12. (original) The sheet conveyance apparatus as claimed in claim 1, wherein said control part controls a charged area of said conveyance belt when a surface resistivity of said sheet is substantially equal to or greater than $1 \times 10^{12} \Omega/\square$ so that at least one of a leading edge portion and a trailing edge portion of said sheet is attached onto said conveyance belt, the leading edge portion being a range from a leading edge of said sheet to a position substantially equal to or less than 50 mm from the leading edge and the trailing edge portion being a range from a trailing edge of said sheet to a position substantially equal to or less than 100 mm from the trailing edge

13. (original) The sheet conveyance apparatus as claimed in claim 1, wherein said control part controls the charge with so that the charge width is changed in accordance with a distance from a leading edge of said sheet.

Tsuneo MAKI, S.N. 10/538,285
Page 5

Dkt. 2271/74557

14. (currently amended) An image forming apparatus for forming an image on a sheet conveyed by a sheet conveyance apparatus ~~conveying a sheet by attaching the sheet onto an endless conveyance belt by applying electric charges onto a surface of the conveyance belt~~, the sheet conveyance apparatus comprising:

an endless conveyance belt;

a charger that charges ~~[[the]]~~ a surface of said endless conveyance belt in a belt-like alternate voltage pattern; and

a control part that controls a charge width of the alternate voltage pattern in a direction of conveyance of the sheet.

15. (original) The image forming apparatus as claimed in claim 14, wherein said conveyance belt is charged before said sheet is fed to said conveyance belt.

16. (currently amended) The image forming apparatus as claimed in claim 14, wherein said control part controls said charger to stop a charging operation to said conveyance belt ~~is stopped~~ while an image is being formed on said sheet, and controls said charger to perform the charging operation ~~is performed~~ on said conveyance belt when conveying said sheet by a specific distance.

17. (currently amended) The image forming apparatus as claimed in claim 16, wherein said control part controls said charger to change a polarity of each charge in said voltage pattern ~~is changed~~ in accordance with an amount of movement of said conveyance belt when said sheet is conveyed by the specific distance.

Tsuneo MAKI, S.N. 10/538,285
Page 6

Dkt. 2271/74557

18. (original) The image forming apparatus as claimed in claim 16, wherein the charge width of said voltage pattern is an integral multiple of an amount of movement of said conveyance belt when conveying said sheet by the specific distance.

19. (currently amended) An image forming apparatus for forming an image on a sheet conveyed by a sheet conveyance apparatus ~~conveying the sheet by attaching the sheet onto an endless conveyance belt by applying electric charges onto a surface of the conveyance belt~~, the sheet conveyance apparatus comprising:

an endless conveyance belt;

a charger that charges ~~[[the]]~~ a surface of said endless conveyance belt in a belt like alternate voltage pattern;

a storing part that stores a relationship between a type of said sheet and a charge width of the alternate voltage pattern to be formed on the conveyance belt; and

a control part that controls a charge width of the alternate voltage pattern in a direction of conveyance of the sheet in accordance with the type of said sheet based on said relationship stored in said storing part.

20. (currently amended) A method for conveying a sheet by attaching the sheet onto an endless conveyance belt ~~by applying electric charges onto a surface of the conveyance belt~~, said method comprising:

~~charging the~~ applying electric charges onto a surface of said endless conveyance belt in a belt-like alternate voltage pattern; and

Tsuneo MAKI, S.N. 10/538,285
Page 7

Dkt. 2271/74557

controlling a charge width of the alternate voltage pattern in a direction of conveyance of the sheet in accordance with a type of said sheet based on a relationship between a type of said sheet and a charge width of the alternate voltage pattern to be formed on the conveyance belt.